REMARKS

The drawings are objected to by the draftsperson under 37 C.F.R. 1.84 in the Notice of Draftsperson's Patent Drawing Review. In response, a Transmittal of Formal Drawings is included herewith. It is believed that the formal drawings address the issues raised by the draftsperson. Acceptance of the formal drawings is requested.

Claims 1-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Schipper (U.S. Patent Number 5,983,159). Claims 1-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Dutka (U.S. Patent Number 6,011,509). Claims 1-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Abraham, *et al.* (U.S. Publication Number 2004/0257277). In view of the amendments to the claims and the following remarks, the rejections are respectfully traversed, and reconsideration of the rejections is requested.

In the present invention as claimed in claims 1-19, a method of determining position using a global position satellite (GPS) signal includes, when determining position of a receiver using first and second GPS signals from a first GPS satellite, measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver by using differences of every two pseudo ranges.

Claims 1-19 are amended to clarify that when determining the position of the receiver using the first and second GPS signals from the first GPS satellite, pseudo ranges from the first and second GPS signals are measured and the position of the receiver is estimated by using the differences of every two pseudo ranges. It is believed that these amendments to the claims clarify the distinctions between the claimed invention and the cited references.

In the present invention as claimed in claims 20-36, an apparatus for determining position using a GPS satellite includes a processor that determines a position of a receiver using first and second GPS signals from a first GPS satellite, measures pseudo ranges from the first and second GPS signals and estimates the position of the receiver using differences of every two pseudo ranges.

Claims 20-36 are amended to clarify that when the processor determines the position of the receiver using the first and second GPS signals from the first GPS satellite, the processor measures the pseudo ranges from the first and second GPS signals and estimates the position of

the receiver using differences of every two psuedo ranges. It is believed that these amendments to the claims clarify the distinctions between the claimed invention and the cited references.

In the present invention as claimed in claims 37-41, an apparatus for determining position using a GPS satellite includes a position calculation unit that determines a position of a receiver using first and second GPS signals from a first GPS satellite. The position calculation unit measures pseudo ranges from the first and second GPS signals and estimates the position of the receiver using differences of every two pseudo ranges.

Claims 37-41 are amended to clarify that when the position calculation unit determines the position of the receiver using the first and second GPS signals from the first GPS satellite, the position calculation unit measures the pseudo ranges from the first and second GPS signals and estimates the position of the receiver using differences of every two pseudo ranges. It is believed that these amendments to the claims clarify the distinctions between the claimed invention and the cited references.

Schipper discloses that pseudo ranges are measured from one or more satellites at two or more selected, spaced-apart observation times, and the simultaneous rotations of the body and the satellite(s) relative to each other result in different body-satellite constellations for which the coordinates of a point on a rotating body are determined. Schipper in no way teaches or suggests estimating the position of the point on the rotating body by using differences of every two pseudo ranges.

Schipper fails to teach or suggest a method of determining position using a global position satellite (GPS) signal that includes, when determining a position of a receiver using first and second GPS signals from a first GPS satellite, measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver by using differences of every two pseudo ranges, as claimed in claims 1-19. Schipper further fails to teach or suggest an apparatus for determining position using a GPS satellite that includes a processor that determines a position of a receiver using first and second GPS signals from a first GPS satellite, the processor measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver using differences of every two pseudo ranges, as claimed in claims 20-36. In addition, Schipper fails to teach or suggest an apparatus for determining position using a GPS

satellite that includes a position calculation unit that determines a position of a receiver using first and second GPS signals from a first GPS satellite, the position calculation unit measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver using differences of every two pseudo ranges, as claimed in claims 37-41.

Because Schipper fails to teach these claimed elements of the invention, it is believed that the claims are allowable over the cited reference, and reconsideration of the rejections of claims 1-41 under U.S.C. 102(b) as being anticipated by Schipper is respectfully requested.

Dutka discloses that a position of a receiver 10 is determined by the intersection of pseudo ranges of an ensemble of space vehicles and historical ephemerides of the ensemble of space vehicles. Thus, Dutka discloses that a plurality of space vehicles are used in determining the position of the receiver and in no way teaches or suggests estimating the position of the receiver by using differences of every two pseudo ranges.

Dutka fails to teach or suggest a method of determining position using a global position satellite (GPS) signal that includes, when determining a position of a receiver using first and second GPS signals from a first GPS satellite, measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver by using differences of every two pseudo ranges, as claimed in claims 1-19. Dutka further fails to teach or suggest an apparatus for determining position using a GPS satellite that includes a processor that determines a position of a receiver using first and second GPS signals from a first GPS satellite, the processor measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver using differences of every two pseudo ranges, as claimed in claims 20-36. In addition, Dutka fails to teach or suggest an apparatus for determining position using a GPS satellite that includes a position calculation unit that determines a position of a receiver using first and second GPS signals from a first GPS satellite, the position calculation unit measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver using differences of every two pseudo ranges, as claimed in claims 37-41.

Because Dutka fails to teach or suggest these claimed elements of the invention, it is believed that the claims are allowable over the cited reference, and reconsideration of the rejections of claims 1-41 under U.S.C. 102(b) as being anticipated by Dutka is respectfully

requested.

Abraham, *et al.* discloses that groups of pseudo ranges from a satellite signal receiver to a plurality of satellites are determined at a respective plurality of times and transmitted to a server, where a position of the satellite signal receiver is determined. Abraham, *et al.* uses a plurality of pseudo ranges from a plurality of satellites. Abraham, *et al.* in no way teaches or suggests estimating the position of the satellite signal receiver by using differences of every two pseudo ranges.

Abraham, *et al.* fails to teach or suggest a method of determining position using a global position satellite (GPS) signal that includes, when determining a position of a receiver using first and second GPS signals from a first GPS satellite, measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver by using differences of every two pseudo ranges, as claimed in claims 1-19. Abraham, *et al.* further fails to teach or suggest an apparatus for determining position using a GPS satellite that includes a processor that determines a position of a receiver using first and second GPS signals from a first GPS satellite, the processor measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver using differences of every two psuedo ranges, as claimed in claims 20-36. In addition, Abraham, *et al.* fails to teach or suggest an apparatus for determining position using a GPS satellite that includes a position calculation unit that determines a position of a receiver using first and second GPS signals from a first GPS satellite, the position calculation unit measuring pseudo ranges from the first and second GPS signals and estimating the position of the receiver using differences of every two pseudo ranges, as claimed in claims 37-41.

Because Abraham, *et al.* fails to teach or suggest these claimed elements of the invention, it is believed that the claims are allowable over the cited reference, and reconsideration of the rejections of claims 1-41 under U.S.C. 102(e) as being anticipated by Abraham, *et al.* is respectfully requested.

In view of the amendments to the claims and the foregoing remarks, it is believed that all claims pending in the application are in condition for allowance, and such allowance is respectfully solicited. If a telephone conference will expedite prosecution of the application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

Date: 1/12/06

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